



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105  
SFD 8-3

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ALAMEDA POINT  
SSIC NO. 5090.3

December 12, 2006

Mr. Thomas Macchiarella, Code 06CA.TM  
Department of the Navy  
Base Realignment and Closure  
Program Management Office West  
1455 Frazee Road, Suite 900  
San Diego, CA 92108-4310

**RE: Draft Record of Decision for Operable Unit 1 Installation Restoration Sites 6, 7, 8,  
and 16, Alameda Point**

Dear Mr. Macchiarella:

Please find enclosed EPA's review of the above referenced document, submitted by the Navy on 23 August, 2006. We sent you an electronic copy of our comments on November 30, 2006 and enclose a hard copy of the comments with this letter.

Our major concern with the OU 1 Record of Decision was with the stated Remedial Action Objectives (RAOs) for Sites 6 and 16. As written in the draft OU 1 ROD, they appear to require institutional controls prohibiting residential use of the property at Sites 6 and 16 even though the remedial goals are set at residential clean up levels. As a result of discussions with the Navy, additional RAO language has been developed which EPA finds satisfactory. We have therefore not commented on this issue other than in one general and one specific comment.

Our comments are mostly requests for clarification and small revisions of specific sections of text. EPA HQ has reviewed the Land Use Control portions of the ROD and their comment is included.

Please call me at (415) 972-3029 with any questions. We look forward to seeing the draft final ROD on February 15, 2007.

Sincerely,

A handwritten signature in cursive script, reading "Anna-Marie Cook".

Anna-Marie Cook  
Remedial Project Manager

enclosure

cc list: Steve Peck, BRAC PMO SW  
Dot Lofstrom, DTSC Sacramento  
Erich Simon, SFRWQCB  
George Humphreys, RAB Co-Chair  
Suzette Leith, EPA  
John Chesnutt, EPA

**EPA Review of the Draft Record of Decision for Operable Unit 1  
Installation Restoration Sites 6, 7, 8 and 16,  
Former NAS Alameda, Alameda Point**

**General Comments:**

1. The Navy has agreed to change the soil RAOs for Sites 6 and 16 as follows: "Minimize the potential risk of exposure (through ingestion or dermal contact) of a commercial worker to COCs in soil and either prevent exposure (through ingestion or dermal contact) of future residents to COCs in soil or prohibit residential use of the property." Because we have agreed to this revision during the review period, EPA is not providing comments on the RAOs for soil for Sites 6 and 16, except for R9 ORC comment # 6, which reiterates this general comment.

**Specific Comments:**

1. **Page D-2, third bullet:** It seems that this third bullet is part of the second bullet related to IR-07 soil removal. If there is a reason to distinguish it from the soil removal proposed in the second bullet, please clarify and elaborate.
2. **Page D-3, first paragraph, last sentence:** Revise to read "Groundwater at IR Sites 7 and 8 is contaminated by total petroleum hydrocarbons (TPH) and is being remediated under the Alameda Point TPH program.
3. **Page D-4, first paragraph after bullets:** Change the words "no further action" for the SWMUs to "closure".
4. **Page D-6, second checklist item, last sentence of "description":** After remediation goals have been achieved, Sites 6 and 16 will allow for commercial/industrial and residential use of Sites 6 and 16. This wording makes the description consistent with the item (1) in the description under the last checklist item.
5. **Page D-7:** Please include "Mr." before Bruce H. Wolfe for the RB.
6. **Page 2-1, Section 2.1, first paragraph, second sentence:** Both a former solvent dip tank and a solvent dip tank are referenced which implies that the latter is still in use. Please clarify.
7. **Page 2-1, Section 2.1, second paragraph, second sentence:** The phrase "however, they are located outside of the site boundary" is not helpful to understanding Site 6 and is

confusing to readers who have not followed the progression of defining the IR sites. Please remove the phrase.

8. **Page 2-4, Section 2.2.2, first and second sentence:** Please revise. As written it appears that 26 IR sites were identified in 1988 under the Cal DHS RAO. It wasn't until 1999/2000 that the IR site number grew to 26, and more were added in subsequent years.
9. **Page 2-6, first paragraph, last sentence:** What caused large changes in groundwater elevations at Site 6 and why would this increase the solvent concentrations? Did this phenomenon happen at all contaminated groundwater sites, and if not, why not?
10. **Page 2-9, second paragraph, last sentence:** Please elaborate on the status of TP-01 if DTSC does not officially close these types of sites.
11. **Page 2-10, first through fifth paragraphs:** Please note that in the letter describing the data gaps that needed addressing in the FS, ROD and RD/RA, EPA also requested, under CERCLA, further investigation of all soil and groundwater beneath OWSs at Sites 6, 7, 8 and 16 and WD areas at Site 6. The investigations are therefore not only to fulfill RCRA closure requirements, but also to satisfy CERCLA investigation requirements from the regulatory agencies.
12. **Page 2-14, Section 2.4, second paragraph:** At the top of page 2-10, it states that the letter of December 29, 2005 recommended further action for NAS GAP 25 which contradicts the last sentence of this paragraph. Also, as stated in the above comment, the purpose of investigating the soil and groundwater beneath OWSs and WDs is to comply with the CERCLA requirements from the regulatory agencies. The RCRA closure requirements should concurrently be met through the CERCLA remedial actions.
13. **Page 2-17, second paragraph, third sentence:** Please rephrase this sentence to more fully explain and support why PAHs are not a concern, i.e. that they occurred sporadically at low concentrations and at depth. As written it appears that the risk assessment was possibly faulty.
14. **Page 2-17, third paragraph:** Please delete the part of the sentence "although located outside the Site 6 boundary". It does not add to the understanding of the ROD, but rather appears to confuse the issue of what is being addressed.
15. **Page 2-19, last two paragraphs:** We do not see what this information has to do with groundwater clean up at Site 6. Please make it clear that Site 6 falls to the east of Saratoga and thus currently meets the RB's criteria for protection as a drinking water source.
16. **Page 2-26, Section 2.9.1.2, first paragraph:** Please include groundwater sampling with the soil sampling beneath the OWSs and WD areas, as requested by the regulators and

agreed to by the Navy in the draft final RI, the FS and the PP.

17. **Page 2-26, second paragraph, second sentence:** How would RAOs be achieved for soil through ICs?
18. **Page 2-27, Section 2.9.2:** Please see General Comment on RAOs.
19. **Page 2-28, Section 2.9.2.3:** EPA considers MCLs to be ARARs, so Alternative 3 would need to clean groundwater up to MCLs.
20. **Page 2-29, Section 2.10.1:** This section should be a comparative analysis of remedial alternatives for soil. However, Section 2.10.1.1. second sentence references ICs on groundwater use, rather than ICs on soil exposure, and the following sentence in this section discusses Alternative 3 for groundwater remediation. Please rewrite.
21. **Page 2-29, Section 2.10.1.2, second sentence:** How do Alternative 2 and 3 for soil cleanup meet ARARs for groundwater?
22. **Page 2-31, section 2.10.2.1, second paragraph, last sentence:** Add at the end of the sentence “until remedial goals are met.” The ICs will only be in place for the duration of the clean up.
23. **Table 2-3:** There are 12 SWMUs referenced on page 2-9, but Table 2-3 only lists six. Where are the remaining six? Please clarify, both in the text on page 2-9 and in this table. Also, please note that the final determination in the ROD for OWSs and WD areas should be additionally to address the CERCLA requirements stated by the regulators per the RI and FS reviews.
24. **Table 2-7:** It is helpful to have the column listing the MCLs for reference, but we question the value of the “background” column since only antimony and lead appear to exceed background. If the Navy thinks that the background column is necessary, please revise the heading to make it clear what the column means. It seems that the use of “yes” and “no” here is opposite to the “yes” and “no” used for the “background” column in the Site 26 ROD.
25. **Page 3-4, last paragraph, first sentence:** Add “In October 2002, during excavation of surface soil in preparation for removal of lead contaminated soil, a blue, crystalline...”
26. **Page 3-5, first full sentence:** Please clarify this sentence further. As it currently reads, and following the previous sentence, the implication is the debris layer was delineated and removed, but this has not yet been done.

27. **Page 3-6, second full paragraph, last sentence:** Please clarify this sentence as the reasoning does not follow with the current wording.
28. **Page 3-7, last paragraph and last sentence:** Please correct this paragraph to reflect the regulators position with respect to OWS 459 at Site 7. In our review of the RI, EPA specified that the investigation of soil and groundwater beneath the OWS at Site 7 had not been adequate and required further investigation during the RD/RA phase, to which the Navy agreed.
29. **Page 3-10, Middle paragraph related to debris area:** Please clarify this paragraph in accordance with the previous comments made for pages 3-4 and 3-5.
30. **Page 3-10, Section 3.3, first sentence:** Please complete this sentence. The sites have undergone the same community participation activities as what?
31. **Page 3-11, Section 3.4, second sentence:** Please include investigation of groundwater beneath OWS 459 as well.
32. **Page 3-11, Section 3.4, second paragraph:** Please correct this paragraph to reflect the regulators position with respect to OWS 459 at Site 7. In our review of the RI, EPA specified that the investigation of soil and groundwater beneath the OWS at Site 7 had not been adequate and required further investigation during the RD/RA phase, to which the Navy agreed. The additional investigation is being performed under CERCLA and is also designed to fulfill any RCRA requirements.
33. **Page 3-12, Section 3.5.3.1, Debris Area Soil, second sentence:** This sentence can be read that all chemicals were frequently detected at concentrations above PRGs. Please reword and clarify.
34. **Page 3-12, Section 3.5.3.1, Debris Area, third paragraph:** Please note that other IR sites on base have had PAH contamination with sporadic patterns that did not indicate a release, yet have required remediation. Please reword this paragraph to provide better support and justification for the conclusion that PAHs are not a problem at Site 7 (the PP has better language regarding this issue).
35. **Page 3-13, second paragraph:** A discussion of cadmium is missing from this paragraph. Please include information on this contaminant with the arsenic and iron.
36. **Page 3-14, second paragraph, last sentence:** This statement begs the question "What are the concentrations of TCE now?". Please address.
37. **Page 3-15, Section 3.7.1, first paragraph, last sentence:** This sentence does not follow or make sense. Suggest deleting.

38. **Page 3-16, Section 3.7.1.1, second paragraph, second and third sentence:** This explanation is not helpful. It appears that all soil COPCs are not attributable to background, yet there is no further discussion of which COPCs are a problem. Also, as EPA has stated previously, arsenic levels in groundwater are not similar to background: they are an order of magnitude greater. The Navy has indirectly acknowledged this by stating that the high levels of arsenic are due to the TPH in the groundwater and that arsenic levels will decrease as TPH contamination is remediated. Please clarify which COPCs are a problem in the soil, and please delete the reference to arsenic levels being similar to background.
39. **Page 3-19, Section 3.8.1, first and second bullet:** Replace the word “minimize” with the word “prevent”.
40. **Page 3-21, Section 3.10.1, third sentence:** Add to the end of the sentence “or in the debris area.”
41. **Table 3-3, page 1 of 1:** Please note that the final determination in the ROD for OWS 459 should be additionally to address the CERCLA requirements stated by the regulators per the RI and FS reviews.
42. **Table 3-5:** If the Navy thinks that the background column is necessary in this table, please revise the heading to make it clear what the column means. It seems that the use of “yes” and “no” here is opposite to the “yes” and “no” used for the “background” column in the Site 26 ROD. Additionally, it is confusing why no comparison to background was made for the debris soil area, especially since page 3-12 states that copper contamination was not due to Navy activities and iron exceeded background concentrations. What are these statements based on if not a comparison to background values?
43. **Table 3-6:** Again, the “Site > Background” yes or no is confusing here and seems to be the opposite of what was done for Site 26.
44. **Table 3-8:** The cancer risk and non-cancer hazard index for residential groundwater jumps out here. Since no CERCLA action is being taken, a footnote explaining that ongoing remedial action under the TPH program is expected to reduce this risk to below the risk management range would be useful here.
45. **Table 4-3:** Please note that the final determination in the ROD for the OWS and WD area should be additionally to address the CERCLA requirements stated by the regulators per the RI and FS reviews.
46. **Tables 4-5 and 4-6:** Same comment as that regarding background column for Table 3-6.

47. **Table 5-3:** Please note that the final determination in the ROD for the OWSs and WD area should be additionally to address the CERCLA requirements stated by the regulators per the RI and FS reviews.
48. **Tables 5-5 and 5-6:** Same comment as that regarding background column for Table 3-6.

### **Responsiveness Summary**

49. **Patrick Lynch Comment #4:** It would also be useful and reassuring to include information about the base boundary groundwater monitoring wells, located on the eastern side of Site 16, that act as guard wells. These wells are subject to quarterly or semi-annual monitoring and have not shown any contaminants that exceed the MCLs. Additionally, the groundwater gradient moves away from Encinal High School toward the Bay, further reassurance that the students and the young children in the day care center are protected from any contaminated groundwater at Site 16.
50. **Patrick Lynch Comment #7:** The response does not address the request in the comment. Please describe the disposal methods employed for soil excavated during utility construction at Site 16.

### **Minor Edits:**

51. **Page 2-9, second paragraph, end of first sentence:** There needs to be spacing between the end of this sentence and the beginning of the next sentence.
52. **Page 2-10, last paragraph, second and third sentence:** A period and spacing are missing between these two sentences.
53. **Page 2-11, Section 2.2.2.4, second sentence:** The word "Sites" is misspelled toward the end of this sentence.
54. **Page 2-31, last paragraph, first sentence:** "because" is misspelled.
55. **Page 3-11, Section 3.4, third sentence:** Change "would" to "will"
56. **Page 3-13, Section 3.5.3.2, third sentence:** TPR should be TPH.



## Comments from EPA's Office of Regional Counsel

### Declaration

1. **pD-6. Data Certification Checklist.** Second item, "Potential Land Use," states that the selected remedies will allow for commercial/industrial use of Sites 6 and 16. We assume this statement is in error, as it conflicts with the fourth item, "key factors," and the RGs are set at residential levels. If these sites are not being remediated to unrestricted use, there will need to be ICs.
2. **Sec. 2.5.3.1, Soil, p. 2-17.** As written, it is not apparent why soil remediation is needed. We recommend adding an explanation of why a remedial action for soil is being selected. Same concern on p. 2-23.
3. **Sec. 2.5.3.2, Groundwater, p. 2-17.** The discussion of metals suggests that antimony, lead and thallium exceed MCLs and are not attributable to background. There needs to be an explanation of why these metals are not being addressed.
4. **Sec. 2.7.1.3, Risk Characterization p. 2-24, Groundwater.** The first paragraph on the page is very unclear.
5. **p. 2-24, second paragraph:** The document previously indicated that lead exceeds MCLs. Therefore, why is it not being addressed? What is the basis for the first sentence in this paragraph?
6. **Sec. 2.8. RAOs, p. 2-25.**  
The Navy has agreed to change the soil RAO as follows: "Minimize the potential risk of exposure (through ingestion or dermal contact) of a commercial worker to COCs in soil and either prevent exposure (through ingestion or dermal contact) of future residents to COCs in soil or prohibit residential use of the property."
7. **Sec. 2.9.1.2, p. 2-26, Soil Alt. 2, ICs.** If the COCs remain at levels higher than residential PRGs or background, then this alternative should also include ICs prohibiting residential use of the property. [Same issue for Site 16, Sec. 5.9.1.2, p. 5-19.]
8. **Sec. 2.9.1.3, Soil Alt. 3, p. 2-27.** Add at end of paragraph, "and site will be suitable for unrestricted use."
9. **Sec. 2.10.1.4, p. 2-30.** Prohibiting excavation does not constitute reduction of mobility through treatment.
10. **Sec. 2.10.2.1, p. 2-31, second par.** HH under alts. 3 and 4 would also be protected because the groundwater would be cleaned up.

11. **Sec. 2.12.2.1, p. 2-37, first par.,** next to last line, please add “or resident” after “commercial/industrial worker.”

### Sec. 3 -- Site 7

12. **Sec. 3.5.3.2, p. 3-13.** In first paragraph, should “TPR” be “TPH”?
13. In various places where the documents states that the groundwater does not pose a significant risk from CERCLA chemicals, we recommend that the Navy include the statement that groundwater contamination is being addressed through the TPH program. For example, sec. 3.8.1 (p. 3-20), sec. 3.12 (p. 3-23), and Table 3-8.
14. **Sec. 3.12, p. 3-23.** We recommend adding “from CERCLA chemicals” to the end of the sentence beginning “The Navy has determined....” Similarly, in the last line of that paragraph, we recommend adding “CERCLA” before “releases”.

### Sec. 4 – Site 8

15. **Groundwater.** In the PP, the Navy committed to further sampling of the groundwater, especially of benzene and TCE. That commitment should also be memorialized in the ROD, with a commitment that if it is determined that groundwater remedial action will be needed, there will be an ESD or ROD amendment. [I think a good place for this commitment would be Sec. 4.8.2 on page 4-17.] Especially regarding benzene, the ROD indicates that concentrations are above MCLs and are not declining (sec. 4.5.3.2, p. 4-12). Subsequently, groundwater is analyzed in terms of risk, but there is no discussion of MCLs. There needs to be more clarity as to why no action is being taken for benzene. [Or is it being addressed under TPH? That’s sort of implied in 6.1 at the top of p. 6-2, and also in 6.6 on p. 6-15.]
16. **Sec. 4.10.2, p. 4-19.** Why the reference to ARARs for groundwater when the only action is for soil? (Similar concern in Sec. 3.)

### Sec. 5 -- Site 16

17. **COCs** – It is not clear how the COCs were selected.
- **Soil:** Sec. 5.7.1.3 on p. 5-16 mentions PCB-contaminated soil as well as the OWS, but elsewhere in the chapter there is only mention of the OWSs. [6.2.1.1 on p. 6-3 also mentions the possibility of PBs at Site 16.]
  - **Groundwater:** Lead is mentioned in Sec. 5.5.3.2 (p. 5-12) as exceeding both background and PRGs, but it is not mentioned later in 5.7.1.4 (p. 5-16) or 5.7.3 (p. 5-17). Why is it not a COC? Also, Sec. 5.7.1.4 attributes some of the groundwater risk to pesticides and aluminum, but they are not mentioned as COCs in 5.7.3 (p. 5-17).

18. **Sec. 5.8 , p . 5-17 and 5-18, RAOs.** Same comments as with Site 6.
19. **Sec. 5.10.2.1 (p. 5-23).** Second paragraph mixes up the remedies and needs editing. It may be sufficient to change “Alternatives 2” in the first sentence to “Alternative 3” and then in the fifth line, after “Risk to human health” insert “under Alternative 2.”

#### **Sec. 6 – Statutory Determinations**

20. **Sec. 6.0, p. 6-1,** third line from bottom, after “hazardous waste” need to add “through treatment.”
21. **Sec. 6.1, p. 6-1, last paragraph, items (1) and (2),** change “prohibiting” to “prohibit.”
22. CERCLA 121(e) does not exempt the Navy from any applicable permit requirements for off-site disposal.
23. **Sec. 6.2.1.2, page 6-5, discussion of Site 8.** This paragraph should state why there is no remedial action for Site 8 GW. And/or include the commitment in the PP for further sampling. Page 6-15 (sec. 6.6) mentions that Site 8 groundwater is being addressed under the TPH program, although that is not set forth clearly in other parts of the document, and it doesn’t address possible VOC contamination in Site 8.
24. **Sec. 6.2.2, p. 6-8.** All the location-specific ARARs are discussed except for ESA. EPA recommends that this section also include a brief discussion of the ESA.
25. **Sec. 6.5, p. 6-14, Preference for Treatment.** It is not correct to say that the soil remedies address the preference for treatment because they employ treatment. They don’t.

#### **ARARs**

26. **Page 6-4, discussion of Res. 88-63.** Why is the sentence regarding groundwater west of Saratoga Street relevant? We recommend that the Navy include at the end of this discussion a conclusion that 88-63 is an ARAR.
27. **Page 6-5, fourth paragraph,** statement that a CERCLA remedial action is not necessary leaves the reader hanging. Please either explain, or refer to the section of the document that explains the rationale.
28. **P. 6-5, lack of MCLs for 1,3-DCB.** Are there any TBCs such as federal or state health advisories?
29. **Page 6-9, soil ARARs.** Please also add stormwater requirements.

30. **Table 6-1, p. 2, comments column.** Instead of the last sentence in each Comments box, we recommend saying: No CERCLA remedy is selected in this ROD for Site 7 or 8 groundwater.
31. **Table 6-2, p. 2, ESA, last column.** The comment says there is no habitat suitable for migratory birds. Is this the intended language? It is different from the statement regarding the least tern on page 3.
32. **Table 6-2, page 3, California ESA,** and also page 2, ESA. It is not sufficient to say that there is no habitat or no unacceptable risk under current conditions. The Navy also needs to ensure that the remedial action itself (esp. excavation) does not harm endangered or threatened species.
33. **Table 6-3, p. 1, Action-Specific ARARs for excavation.** Stormwater requirements should be included also.

**EPA HQ Comments:**

1. **Regarding Checklist Item 1:** Why isn't the groundwater remediation area located within the map's (Figures 2-4 and Figure 5-3) LUC boundary? The LUC boundary should cover the entire groundwater plume until RGs are reached. In the draft final ROD, please revise the LUC boundaries on the figures to include the entire groundwater plume at each site.